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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,141	03/29/2004	Jin Cheol Hong	8733.1049.00	1113
30827	7590	06/27/2006	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			NGUYEN, DUNG T	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	
			2871	

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,141

Applicant(s)

HONG, JIN CHEOL

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) 6-22 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's amendment dated 04/13/2006 has been received and entered. By the amendment, claims 1-5 are remain pending in the application. Claims 6-22 stand withdrawn from consideration.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 5 is rejected under 35 U.S.C 102(e) as being anticipated by Noguchi et al, US Patent No. 4,969,718.

The above claims are anticipated by Noguchi et al. figure 5A and accompanying text which disclose an active matrix LCD comprising:

. first and second data lines (513, 514);

Art Unit: 2871

. a first pixel electrode (522);
.
. a second pixel electrode (517);
.
. a parasitic capacitance between the second electrode and the second data line inherently three times greater than that between the first pixel electrode and the first data line (since the distance between the second pixel electrode and the second data line is shorter than that between the first pixel electrode and the first data line).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al, US Patent No. 4,969,718, in view of Fujiyoshi, US Patent No. 6,327,008.

Regarding the above claims, Noguchi et al. disclose the claimed invention as described above except for a voltage deviation in the first pixel due to parasitic capacitance of the first pixel electrode being substantially the same that of the second pixel electrode as well as signals applying to the first and the second pixel electrodes are the same polarity and inverted for each two pixel electrode. Fujiyoshi does disclose applying signals having a same polarity and inverting for each two pixel electrodes as in figure 12A. It should also be noted that since the signals having a same polarity and inverting for each two pixel electrodes, a deviation in the first voltage of the first pixel electrode and the second pixel electrode would be cancelled (i.e., the

Art Unit: 2871

voltage deviation in the first pixel due to parasitic capacitance of the first pixel electrode being substantially the same that of the second pixel electrode). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ signals having a same polarity and inverting for each two pixel electrode in the Noguchi et al display as shown by Fujiyoshi in order to improve a display characteristics (see Summary of the Invention).

Response to Arguments

5. Applicant's arguments filed 04/13/2006 have been fully considered but they are not persuasive.

Re claims 1-2, Applicant contends that Noguchi fails to disclose the limitation of "a voltage deviation" (amendment, page 6). It should be noted that the combination of Noguchi et al. and Fujiyoshi do disclose such feature as stated above (see paragraph 4).

Re claim 5, Applicant appears to believe that Noguchi et al. fails to anticipate a first parasitic capacitance or a second parasitic capacitance being the recited magnitude, since the text of the reference is silent about the existence or magnitude of any parasitic capacitance and such values of the parasitic capacitances cannot be compared by simply comparing the distance to the respective data lines and there may be no parasitic capacitance element between the pixel electrode and the data line (amendment, pages 6-7). The Examiner respectfully disagrees with Applicant's view point. It should be noted that a capacitance can exist between two plates (i.e., two layers, two films) and it is defined to be the amount of charge Q stored in between the two plates for a potential difference or voltage V existing across the plates. In other words, The capacitance C is given by

Art Unit: 2871

$$C = Q/V \quad (\text{electrical definition})$$

or given by

$$C = \epsilon_0 A/d \quad (\text{physical definition})$$

wherein C is a capacitance; Q is charges; V is a voltage; A is an area; ϵ_0 is a dielectric and d is a distance between the two plates.

Clearly, the distance d increases the Capacitance decreases since the charge cannot be contained as 'densely' as before. In other words, although the Noguchi et al. reference may silent about the existence or magnitude of any parasitic capacitance, such parasitic capacitance clearly inherently depended on the distance between the pixel electrode and the data line.

Accordingly, the limitations of the claims 1-5 met.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2871

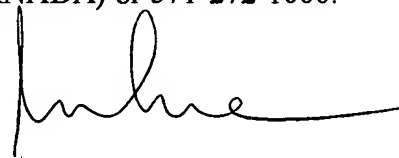
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
06/26/2006



Dung Nguyen
Primary Examiner
Art Unit 2871